

ABSTRACT

The methods and apparatus for transporting compressed gas includes a gas storage system having a plurality of pipes connected by a manifold whereby the gas storage system is designed to operate in the range of the optimum compressibility factor for a given composition of gas. The pipe for the gas storage system is preferably large diameter pipe made of a high strength material whereby a low temperature is selected which can be withstood by the material of the pipe. Knowing the compressibility factor of the gas, the temperature, and the diameter of the pipe, the wall thickness of the pipe is calculated for the pressure range of the gas at the selected temperature. The gas storage system may either be modular or be part of the structure of a vehicle for transporting the gas. The gas storage system further includes enclosing the pipes in an enclosure having a nitrogen atmosphere. A displacement fluid may be used to offload the gas from the gas storage system. A vehicle with the gas storage system designed for a particular composition gas produced at a given location is used to transport gas from that producing location to a receiving station miles from the producing location.